بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـــسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية تغيرات

يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %

بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

MOLECULAR GENETIC STUDIES ON DROUGHT TOLERANCE IN SOME INBRED LINES AND HYBRIDS OF MAIZE (*Zea mays* L.)

BY

AMIRA HELMY EL-SHONEY
B.Sc. Agric Sci. (Genetics), Ain Shams Univ., 1994

Thesis submitted in partial fulfillment
of
the requirements of the degree of

MASTER OF SCIENCE
in
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Ain Shams University

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APROVAL SHEET

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ABSTRACT

Amira Helmy El-Shoney, Molecular Genetic Studies on Drought Tolerance in Some Inbred Lines and Hybrids of Maize (*Zea mays* L.), Unpublished Master of Science Thesis, Genetics Dept., Fac. Agric, Ain Shams Univ., 2000.

From 18 *Zea mays* L. inbred lines, two were chosen as drought tolerant and drought sensitive genotypes (G615w and G635y, respectively). They were evaluated along with their F_1 and F_2 for their relative drought tolerance for some water stress-related traits.

SDS-protein profiles indicated the occurance of polymorphism patterns such as peroxidase and acid phosphatase isozymes, all of these patterns showed differential responses with respect to drought tolerance.

Bulked segregant analysis revealed that RAPD markers exhibited PCR amplification products especially with primer B11 (two bands 270 bp and 500bp), which are considered as molecular markers, linked with drought tolerance.

Key words: *Zea mays*, drought tolerance, water stress-related traits, SDS-PAGE, peroxidase isozymes, acid phosphatase isozymes, PCR, RAPD, bulked segregant analysis (BSA).